Be sure to list the existing plants and/or the plants you are planning to grow. You must include the crop code(s) in order to receive lime and fertilizer recommendations. Codes are listed on the back of the information sheet. Code 024 applies to all vegetable garden crops and 026 to all lawn grasses except centipedegrass, which is coded as 022.

■ **Package the sample appropriately.** Put the soil mixture in the sample box. *Do not* tape the box or put soil in a plastic bag. If you are sending several sample boxes through the mail, pack them carefully in a sturdy container. *Do not* send samples in a manila envelope. Mail samples to the Agronomic Division laboratory at the address on the back of this publication.

Receiving the soil test report

Soil samples are usually analyzed within one week of the time they are received. However, from late fall through early spring, processing may take several weeks due to the heavy sample influx from farmers at this time.

When testing is complete, a report is mailed to the client and a copy is posted on the Internet at

http://agronomy.agr.state.nc.us/

A cover sheet and a crop-specific note are sent with the report. The cover sheet explains the technical terms and index values. The note provides extra details on fertilizer application for the kind of plants the client wants to grow.

Information about soil tests and how to interpret them is also available on the internet at

http://www.ncagr.com/agronomi/uyrst/

Consult an agricultural advisor for more help on sampling, interpreting soil test results, and understanding how to implement them.

North Carolina Department of Agriculture and Consumer Services

Agronomic Division
Soil Testing Section

Physical Address: 4300 Reedy Creek Road
(FedEx, UPS) Raleigh, NC 27607-6465

Mailing Address: 1040 Mail Service Center
(U.S. Postal Service) Raleigh, NC 27699-1040

Phone: (919) 733-2655

Web site: **www.ncagr.com/agronomi/**

Agronomic Sampling
Folder No. 1

prepared by
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revised
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Soil Sampling for Home Lawns & Gardens

The Agronomic Division can analyze soil for its nutrient content and for properties that affect plant growth. Soil testing

- fosters plant growth by providing optimal lime and fertilizer recommendations,
- diagnoses common nutrient deficiencies or toxicities, and
- promotes environmental quality.

When gardeners apply only as much fertilizer as is necessary, nutrient runoff into surface or ground water is minimized, money is saved, and natural resources are conserved.

Taking a good sample

The benefits of a soil test depend on a good sample. The sample should represent the area it is taken from. Otherwise, the results may have little or no value.

A soil sample must be taken at the right time and in the right way. The tools used, the area sampled, the depth and uniformity of the sample, the information provided, and packaging all influence quality of the sample.

■ **Time it right.** Take a soil sample a few months before initiating any new landscaping—whether it be laying sod, starting a vegetable garden, putting in a flower bed, or planting perennials. If the soil test report recommends lime, you will have enough time to apply it and have it adjust the soil pH before you plant.

Sample established areas—lawns, trees, shrubbery, and other perennials—once every

three or four years. You can sample at any time of year; however, mid-August through mid-September is an ideal time to take samples for cool-season grasses, such as fescue, bluegrass, and ryegrass. By sampling at this time, you can be ready to apply lime in the fall.

If an established area exhibits abnormal growth or plant discoloration, take a soil sample right away. You may want to submit matching plant tissue samples or separate soil samples for nematode assay. Refer to the Agronomic Division's Sampling Folder No. 3, *Diagnosing Plant Growth Problems*, for more information.

For areas recently limed or fertilized, delay sampling at least six to eight weeks.

■ **Use clean sampling equipment.** Use a soil probe, spade, hand garden trowel, or shovel to collect samples. Do not use brass, bronze, or galvanized tools because they will contaminate samples with copper and/or zinc.

Mix soil cores for each sample in a clean, plastic bucket. If the bucket has been used to hold fertilizer or other chemicals, wash it thoroughly before using it for soil samples.

■ **Sample each unique area separately.** Each sample should represent only one soil type or area—for example, a lawn, vegetable garden or perennial landscaped area (Figure 1). For each unique area, take at least six to eight subsamples and combine them to make one composite sample.

If one area of your yard seems healthy and another has bare or yellow areas, sample healthy and unhealthy areas separately even if both are lawn grasses or flower gardens, etc.

■ **Take a soil core to the appropriate depth.** For lawns, sample to a depth of four inches, excluding any turf thatch.

For vegetable and flower gardens, sample to the depth that you plan to incorporate lime or fertilizer, usually four to six inches.

For shrubbery, remove any mulch or surface debris, then sample to a depth of four to six inches around the base of plants. Avoid zones where lime or fertilizer have been recently applied.

■ **Mix sample cores well.** Place all the subsamples for one unique area in a plastic bucket and mix thoroughly. Use the mixture in the bucket to fill a soil sample box about two-thirds full. Look for the fill line on the box.

■ **Fill out an information sheet and label the sample box completely.** Obtain sample boxes and information sheets from Cooperative Extension offices, agribusinesses, regional agronomists, or the Agronomic Division laboratory. Use permanent ink or pencil to fill out forms and label boxes.

If you just want routine lime and fertilizer recommendations, then fill out a *Soil Sample Information* sheet (form AD1) and send it with your samples.

If you suspect existing nutritional problems and want the problems diagnosed, complete a *Diagnostic Soil Sample Information* sheet (form AD2) instead.

Give each sample a unique identifier of up to five letters and/or numbers. Put this identifier on both the information sheet and the sample box. Choose an identifier that will help you remember the area it corresponds to, such as FYARD, BYARD, ROSES, or GRASS.

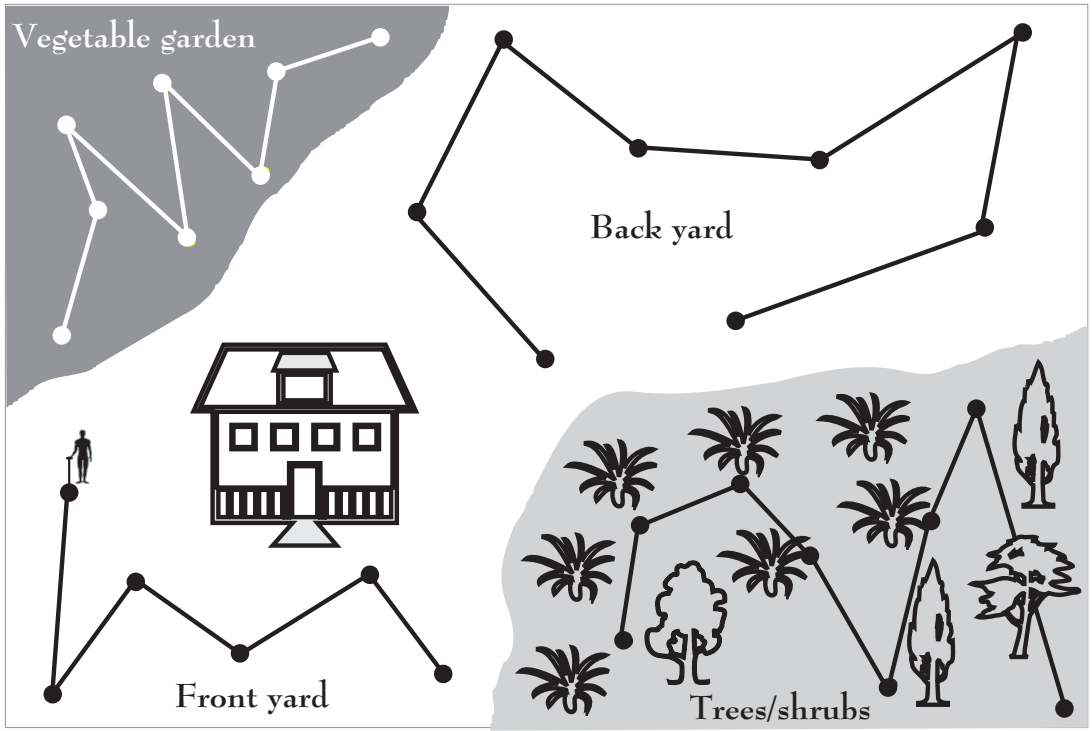

Figure 1. Unique areas to sample in a home landscape.